

Serial No. 10/728,040

Atty Dkt No. 706499US2

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12. (Currently Amended) ~~The suspension system of claim 11,~~ In a vehicle having a
hydro-pneumatic suspension system, the suspension system having a right side hydro-pneumatic
strut cross-coupled to a corresponding left side hydro-pneumatic strut such that an upper chamber of
the right side strut is fluidly connected to a lower chamber of the left side strut and an upper
chamber of the left side strut is fluidly connected to a lower chamber of the right side strut, the
suspension system further comprising:

a cross-flow valve for selectively fluidly connecting the right side strut with the left side
strut;

an articulation valve for selectively fluidly connecting the upper chamber of the right side
strut with the lower chamber of the right side strut;

a first accumulator fluidly connected with the upper chamber of the right side strut;

a second accumulator selectively fluidly connected with the upper chamber of the right side
strut by a spring-rate valve;

a hydraulic supply selectively fluidly connected with the right side and left side struts by a
ride-height valve; and

a suspension control system adapted to control the cross-flow valve, articulation valve, ride-
height valve and spring-rate valve to set the suspension system in one of an on-road configuration
and an off-road configuration, and wherein the suspension control system opens the ride-height
valve and fluidly connects the hydraulic supply to raise the overall height of the vehicle.

13. (Original) The suspension system of claim 12, wherein the suspension control system further closes the cross-flow valve and the spring-rate valve, and opens the articulation valve to set the suspension system in the off-road configuration.

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14. (Cancelled)

15. (Currently Amended) The suspension system of claim [[11]]12, wherein the cross-flow valve selectively fluidly connects the upper chamber of the right side strut with the lower chamber of the left side strut, the system further comprising a second cross-flow valve selectively fluidly connecting the upper chamber of the left side strut with the lower chamber of the right side strut.

16. (Cancelled)

17. (Currently Amended) The suspension system of claim [[11]]12, further comprising a third accumulator fluidly connected with the upper chamber of the left side strut and a fourth accumulator selectively fluidly connected with the upper chamber of the left side strut by a second spring-rate valve.

18. (Original) The suspension system of claim 17, further comprising a flow-restricting orifice fluidly connecting the first and second accumulators with the right side strut, and a second flow-restricting orifice fluidly connecting the third and fourth accumulators with the left side strut.

19. (Previously Presented) A suspension system comprising:

a right side hydro-pneumatic strut cross-coupled to a left side hydro-pneumatic strut such that an upper chamber of the right side strut is fluidly connected to a lower chamber of the left side strut and an upper chamber of the left side strut is fluidly connected to a lower chamber of the right side strut;

a first accumulator fluidly connected with the upper chamber of the right side strut;

a second accumulator selectively fluidly connected with the upper chamber of the right side strut by a spring-rate valve;

a hydraulic supply selectively fluidly connected with the right side strut by a ride-height valve; and

a suspension control system adapted to control the spring-rate valve, hydraulic pump and ride-height valve to set the suspension system in one of an on-road configuration and an off-road configuration;

wherein the suspension control system opens the ride-height valve to connect the hydraulic supply to the right side strut to raise the overall height of the vehicle when converting from the on-road configuration to the off-road configuration.

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20. (Previously Presented) The suspension system of claim 19 further comprising:
a first cross-flow valve for selectively fluidly connecting the right side strut to the left side strut; and
a second cross-flow valve for selectively fluidly connecting the left side strut to the right side strut;
a conduit and an articulation valve for selectively fluidly connecting the upper chamber of the right side strut with the lower chamber of the right side strut;
wherein the suspension control system is arranged to set the suspension system in the off-road configuration by closing the ride-height valve, the first and second cross-flow valves and the spring rate valve, and opening the articulation valve; and
wherein the suspension control system is arranged to set the suspension in the on-road configuration by closing the articulation valve and opening the cross-flow valve and the spring-rate valve.